

21
cont'd
a pressure sensitive transducer means communicating with said aspiration fluid conduit means for generating, when said controllable pump means is pumping, a pump control signal for said controllable pump means proportional to the vacuum in said aspiration fluid conduit means induced by said pump means.

Sub G2
34. (twice amended) A fluid control apparatus for use with a surgical irrigation and aspiration instrument adapted for irrigation and aspiration of a surgical site located in a small elastic chamber, said fluid control apparatus comprising:

an irrigation fluid conduit means for conducting irrigation [fluid] liquid from a source of irrigation [fluid] liquid to the surgical site,

an aspiration fluid conduit means for removing fluid from the surgical site,

a suction means in fluid communication with said aspiration fluid conduit means for providing suction in said aspiration fluid conduit means, and

a liquid pressure equalizing means for admitting irrigation liquid from the source of irrigation [fluid] liquid to said aspiration fluid conduit means when a blockage occurs therein to vent the vacuum therein.

37. (twice amended) The apparatus of Claim 34 wherein said liquid pressure equalizing means includes a pressure equalizing conduit providing communication for the irrigation [fluid] liquid from [said irrigation fluid conduit means] the source of irrigation liquid to said aspiration fluid conduit means.

38. (once amended) The apparatus of Claim 37 further comprising a valve means in said pressure equalizing conduit for

controlling the flow of irrigation [fluid] liquid to said aspiration fluid conduit means.

38
(Cont'd)

39. (twice amended) The apparatus of Claim 34 further comprising a preventing means for preventing at least some of the irrigation [fluid] liquid from flowing in said irrigation fluid conduit means generally away from the surgical site when said liquid pressure equalizing means is admitting the irrigation [fluid] liquid into said aspiration fluid conduit means.

23
41. (twice amended) The apparatus of Claim ²²~~40~~ wherein said check valve is operatively positioned between the surgical site, and the connection of said liquid pressure equalizing means and said irrigation fluid conduit means, and said check valve prevents irrigation [fluid] liquid from flowing from the surgical site to said connection.

42. (twice amended) The apparatus of Claim 34 wherein the source of irrigation [fluid] liquid comprises a bottle containing the irrigation [fluid] liquid and positioned generally above the surgical site.

43. (twice amended) The apparatus of Claim 34 wherein the source of irrigation [fluid] liquid comprises a bag containing the irrigation [fluid] liquid and positioned generally above the surgical site.

24
44. (once amended) A fluid controlled apparatus for use with a surgical irrigation and aspiration instrument adapted for irrigation and [aspiration] aspiration of a surgical site located in a small elastic chamber, said fluid control apparatus comprising:

an irrigation fluid conduit means for conducting irrigation fluid from a source of irrigation fluid to the surgical site,

an aspiration fluid conduit means for removing fluid from the surgical site,

a pump means for providing suction in said aspiration fluid conduit means, and

a transducer releasing means for releasing the pressure in said aspiration fluid conduit means to equilibrium, at the first indication of an occlusion of said aspiration fluid conduit means, by [using a] causing the introduction of venting liquid having the same pressure as that of the irrigation fluid in said irrigation fluid conduit means[.] into said aspiration fluid conduit means.

Please add the following new Claims:

36 ~~58~~
A9.

(newly-added -- corresponds to old Claim ²⁹~~45~~

35 written in independent form) A fluid controlled apparatus for use with a surgical irrigation and aspiration instrument adapted for irrigation and aspiration of a surgical site located in a small elastic chamber, said fluid control apparatus comprising:

an irrigation fluid conduit means for conducting irrigation fluid from a source of irrigation fluid to the surgical site,

an aspiration fluid conduit means for removing fluid from the surgical site,

a pump means for providing suction in said aspiration fluid conduit means,

a releasing means for releasing the pressure in said aspiration fluid conduit means to equilibrium, at the first indication of an occlusion of said aspiration fluid conduit

means, by using a venting liquid having the same pressure as that of the irrigation fluid in said irrigation fluid conduit means, and

said releasing means including a transducer in communication with said aspiration fluid conduit means and operatively associated with said pump means, and a bacteria-retentive filter means for filtering the fluid flowing to said transducer.

³⁷
~~59~~
~~50~~ (newly-added) The apparatus of Claim ³⁶~~49~~ wherein said releasing means stops the vacuum effect of said pump means on said aspiration fluid conduit means at said first indication.

³⁸ ⁶⁰
~~51~~ (newly-added) The apparatus of Claim ⁵⁸ ³⁶~~49~~ wherein said releasing means includes a user operated and actuated switch means.

³⁹ ⁶¹
~~52~~ (newly-added) The apparatus of Claim ³⁸ ⁶⁰~~51~~ wherein said releasing means includes a fluid conduit for providing fluid to said aspiration fluid conduit means, and a valve in said fluid conduit for controlling the flow of fluid from said fluid conduit into said aspiration fluid conduit means, and said switch means is operatively connected to said valve for opening said valve when the occlusion is detected.

Sub II ⁶²
~~53~~ (newly-added) The apparatus of Claim 37 wherein said pressure equalizing conduit connects directly to said irrigation fluid conduit means so that the irrigation liquid can flow through at least a portion of said irrigation fluid conduit means to said aspiration fluid conduit means.